

Strategic Plan for Geographic Information Systems (GIS) Implementation

One Year Plan May 31, 2001

In one year, using personnel resources currently available, IRM will initiate implementation of the GIS Plan for storing spatial data. Here we will set out the goals for the year.

Using current personnel, Jean Wylie will perform the duties of the Data Base Administrator. Janna Taylor will act as Data Librarian and interface programmer. Others that will assist are Mark Russell, Jerry Minick, and Jay Johnson.

At the end of the year the structure will be in place and partially populated. At that time we will be able to project how long it will take to complete to add remaining legacy data.

I. Put a Data Base Server in Place.

Currently IRM has a server that can be dedicated to serving GIS data. IRM does not have sufficient disk space or the means to backup a geodatabase. A budget has been made to buy a first installment of disk, as well as a tape drive and tapes to perform backups.

1. Servers

- a. Data - Denali
- b. Software - R7PDC, Spurr, Styx
- c. Web server

2. Hardware

- a. Disk - first year increment -600 gig
- b. Tape Backup System
- c. Memory
- d. Workstation upgrades to accomodate ArcGIS 8.

3. Software for serving geodata.

- SDE 8 (we have)
- Informix (we have)
- ArcIMS (needed)
- ArcGIS 8.1 (we have)

4. Install software

- SDE 8
- Informix
- ArcIMS
- ArcGIS 8.1

II. Design and Implement Data Frameworks.

The most extensive task is designing a framework for the data sets that provides both comprehensive storage and user accessibility. Data should be searchable and well described. There are many issues of how the users will see the data and then use it.

1. Searchable User Frontend (user's view)
 - a. HTML and ArcIMS
 - b. SDE
2. Internal Data Structures
 - a. Spatial
 - b. Text
3. Data Dictionary with HTML viewer
4. Metadata

III. Write Procedures.

1. How to load data
2. Who can load data.
3. Metadata required
4. Modifying data
 - Standards for checking out data and returning updates
5. Provide notice of added and updated data
6. Reading data
7. Standardizing Formats and Projections.
 - Existing data in previously used projections will have to be converted as time allows.
 - a. World - Decimal Degrees NAD83
 - b. State - Albers 154 NAD83
 - c. Study Area - UTM NAD83

IV. Write Policies.

1. Data access
2. Data projection
3. Metadata minimum requirements
4. Disclaimers
5. Warnings
6. Data Distribution

V. Produce Proof of Concept Product

1. Test scenarios
 - a. Viewing geographic data from:
 - Arc Workstation
 - ArcCatalog
 - ArcMap

- Arcview
- b. Viewing text data
- c. Searching data
- e. Exporting data
 - Standard (.e00)
 - Other

- 2. Test data
 - a. Choose sample set
 - b. How much

VI. Training

- 1. Identify
 - a. Data base Administration
 - Mark, Jean, John
 - b. Data base Management
 - Jean, Janna
 - c. SQL
 - Jean, Janna
 - d. ArcView
 - All arc users
 - e. Informix maintenance
 - Mark, Jean, John
 - f. ArcIMS
 - Jean, Janna, Jay
- 2. Initiate or schedule

VII. Deliverables

- 1. Monthly reports are due the first Wednesday of each month
- 2. Prototype at 6 months
- 3. Draft standards at 9 months
- 4. At one year:
 - 1. Standards
 - 2. Procedures
 - 3. Data conversion measures
 - 4. Data Structures